CLAIMS

What is claimed is:

1.   A transceiver module useful in screening for electrostatic discharge damage to an laser diode included in the transceiver module comprising:

at least one selectable switch coupled to the laser diode and configured to selectively isolate the laser diode from other circuitry disposed in the transceiver module; and

a plurality of external test pins coupled to the oxide laser diode wherein the test pins are adapted to be connected to external testing equipment.

2.   The transceiver module of claim 1, further comprising a laser driver coupled to the laser diode, wherein the laser driver comprises the at least one selectable switch.

3.   The transceiver module of claim 1, wherein the external test pins are pogo style pins.

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4. A transceiver module comprising:

a laser diode;

a laser driver coupled to the laser diode;

a microprocessor coupled to the laser driver,

memory coupled to the microprocessor, the memory comprising a reference operating characteristic of the laser diode; and

wherein the microprocessor is adapted to collect periodic operating characteristics of the laser diode and to compare the periodic operating characteristics of the laser diode to the reference operating characteristics of the laser diode.

5. The transceiver module of claim 4, wherein the memory comprises an electronically erasable programmable read only memory.

6. The transceiver module of claim 4, wherein the reference operating characteristics of the laser diode are stored as quadratic spline coefficients.

7. The transceiver module of claim 4, wherein the reference and periodic operating characteristics of the laser diode comprise current/voltage characteristics.

8. The transceiver module of claim 4, wherein the reference and periodic operating characteristics of the laser diode comprise current versus optical power characteristics.

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9.   The transceiver module of claim 4, wherein the microprocessor is further adapted to store the periodic operating characteristics of the laser diode in the memory.

10.   The transceiver module of claim 9, wherein the microprocessor is further adapted to store the periodic operating characteristics of the laser diode in the memory as cubic spline coefficients.

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11.   A transceiver module comprising:

a laser diode;

a laser driver coupled to the laser diode;

a microprocessor coupled to the laser driver,

memory coupled to the microprocessor; and

wherein the microprocessor is adapted to:

collect periodic operating characteristics of the laser diode at various

times;

store the collected periodic operating characteristics of the laser diode in

the memory; and

compare the periodic operating characteristics of the laser diode collected

at at least two different times to detect damage to the laser diode.

12.   The transceiver of claim 11, wherein the periodic operating characteristics comprise current/voltage characteristics.

13.   The transceiver of claim 11, wherein the periodic operating characteristics comprise current versus optical power characteristics.

14.   The transceiver of claim 11, wherein the microprocessor is further configured to set a fault flag when damage to the diode is discovered.

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15. The transceiver of claim 11, further comprising a communications connector adapted to couple to an electronic component, the microprocessor further configured to notify an electronic component connected to the communication connector when damage to the diode is discovered.

16. The transceiver of claim 11, wherein the microprocessor is further configured to record the periodic operating characteristics as cubic splines to the memory.

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17. A method of manufacturing a transceiver module comprising:

coupling a laser diode to a laser driver;

coupling the laser driver to a microprocessor;

coupling the microprocessor to memory;

storing reference operating characteristics of the laser diode in the memory; and

configuring the microprocessor to collect periodic operating characteristics and to

compare the reference operating characteristics with the periodic operating characteristics

to detect damage to the laser diode.

18. The method of claim 17 further comprising, configuring the microprocessor to

store collected periodic operating characteristics as cubic splines in the memory.

19. The method of claim 17, wherein storing reference operating characteristics of the

laser diode comprise storing quadratic spline coefficients.

20. The method of claim 17, wherein storing reference operating characteristics of the

laser diode comprises storing at least one of current/voltage characteristics and current versus

power characteristics.

21. The method of claim 17, further comprising generating reference operating

characteristics for the diode prior to installing the laser diode in a transceiver.

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